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10/016,364	10/30/2001	Mikhail Yury Podrazhansky	0761-1-1	3858

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EXAMINER	
DESHPANDE, KALYAN K	
ART UNIT	**PAPER NUMBER**
3623	

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/016,364	PODRAZHANSKY, MIKHAIL YURY	
	Examiner	Art Unit	
	Kalyan K. Deshpande	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 October 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/13/2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. The following is a non-final office action in response to the communications received on October 30, 2001. Claims 1-24 are now pending in this application.

Information Disclosure Statement

2. The examiner has reviewed the patents and articles supplied in the Information Disclosure Statements (IDS) provided on May 13, 2002.

Claim Objections

3. Claim 18 is objected to because of the following informalities: limitation "a" is missing. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Castonguay (U.S. Patent No. 5911134).

As per claim 1, Castonguay teaches:

A modular system architecture for a process stream, the process stream having means operatively disposed therein for communicating with at least one computer or database engaged in management of workload distribution, the management of workload distribution generating historical work transactional data, comprising:

a) a Data Import Module receiving the generated work transactional data (see column 6 lines 44-48, column 7 lines 17-34, figure 4, and figure 6; where the force management system is provided with raw statistical data of incoming calls and agents activity. The incoming calls and agents' activities are generated work and the raw statistical data is historical data.);

b) said Data Import Module transforming the generated work transactional data into at least one Workload Volume (see column 6 lines 40-50 and column 8 lines 32-67; where a call volume (workload volume) for a given time segment is determined in order to determine a call volume (workload volume) for a future time segment.);

c) a Forecast Module in communication with said Data Import Module, said Forecast Module transforming said Workload Volume into a Forecast Transaction (see column 6 lines 40-50 and column 8 lines 32-67; where a call volume (workload volume) for a given time segment is determined in order to determine a call volume (workload volume) for a future time segment.);

d) a Staffing Requirements Module in communication with said Forecast Module, said Staffing Requirements Module transforming said Forecast Transaction into at least one Staffing Requirements (see column 7 lines 36-54; where staffing requirements are determined based on forecast call (workload) volume and user defined parameters.);

e) a Scheduling Module in communication with said Staffing Requirements Module, said Scheduling Module transforming Staffing Requirements into a selected Schedule (see column 7 lines 55-67 and column 8 lines 1-7; where a schedule is determined by matching the staffing possibilities with the staffing requirements);

whereby the process stream providing said selected Schedule of workload distribution via the transformed Staffing.

As per claim 2, Castonguay teaches:

The modular system architecture for a process stream of claim 1, wherein said Data Import Model receiving historical work transactional data (see column 6 lines 44-48, column 7 lines 17-34, figure 4, and figure 6; where the force management system is provided with raw statistical data of incoming calls and agents activity. The incoming calls and agents' activities are generated work and the raw statistical data is historical data. This data is used to generate a forecast.).

As per claim 3, Castonguay teaches:

The modular system architecture for a process stream of claim 2, wherein said Data Import Model receiving queued work transactional data (see column 7 lines 16-35, column 11 lines 23-32, and column 11 lines 40-57; where the raw data provided to the force management system includes statistics concerning incoming calls such that the system can parse this information in to call volume and average handling time. Using the average handling time the system determines how many minutes pass before an agent can handle a call. A call is queued until an agent can handle

the call, thus the system is effectively receiving statistical data on queued work transactional data).

As per claim 4, Castonguay teaches:

The modular system architecture for a process stream of claim 3, wherein said Workload Volume is an actual historical Workload Volume (see column 6 lines 44-48, column 7 lines 17-34, figure 4, and figure 6; where the force management system is provided with raw statistical data of incoming calls and agents activity. The incoming calls and agents' activities are generated work and the raw statistical data is historical data.).

As per claim 5, Castonguay teaches:

The modular system architecture for a process stream of claim 4, wherein said Workload Volume is a special events Workload Volume (see column 10 lines 11-42 and column 10 lines 50-57; where the system parses data for specific times accounts for special days).

As per claim 6, Castonguay teaches:

The modular system architecture for a process stream of claim 5, wherein said Data Import Module transforming the generated work transactional data into at least one Workload Volume via a Selected Conditions Calendar function (see column 9 lines 38-61 and figure 6; where a calendar factor parses statistical data in to call (workload) volumes for a given calendar period).

As per claim 7, Castonguay teaches:

The modular system architecture for a process stream of claim 6, wherein said Selected Conditions Calendar function parses said Workload Volume into selected groups representing specific types of data (see column 9 lines 1-67, column 10 lines 1-42, and figure 6; where the calendar function parses data in to specific groups. The specific group can be a half hour segment of a day, any day of the week, any week, any month, or any period of time (season)).

As per claim 8, Castonguay teaches:

The modular system architecture for a process stream of claim 7, wherein said groups representing specific types of data are Daily Value, Time Series Value and Consolidated Value (see column 9 lines 1-67, column 10 lines 1-42, and figure 6; where the calendar function parses data in to specific groups. The specific group can be a half hour segment of a day (Time Series Value), any day of the week (Daily Value), any week, any month, or any period of time (Consolidated Value). Daily Value is defined as the data for a day. Time Series Value is defined as data for segments throughout the day. Consolidated Value is defined as data for a selected percentage of time. These three definitions are based on the definitions provided in the specification. See pp. 13-14.).

As per claim 9, Castonguay teaches:

The modular system architecture for a process stream of claim 8, wherein said Forecast Module transforming said Workload Volume via a Search Algorithm function (see column 8 lines 32-67, column 9 lines 1-15, and figure 6; where the historical data is scanned for predetermined, user selected periods of time. The

search algorithm function searches selectable conditions that define data points of interest. See specification page 14).

As per claim 10, Castonguay teaches:

The modular system architecture for a process stream of claim 9, wherein said Search Algorithm function receiving selected conditions defining a search criteria, said Search Algorithm resolving the transformation of said Workload Volume via said search criteria (see column 8 lines 32-67, column 9 lines 1-15, and figure 6; where the historical data is scanned for predetermined, user selected periods of time. The search algorithm function searches selectable conditions that define data points of interest. See specification page 14).

As per claim 11, Castonguay teaches:

The modular system architecture for a process stream of claim 10, wherein said Forecast Transaction is a Forecasted Workload Volume derived from actual historical transactional data (see column 6 lines 44-48, column 7 lines 17-34, figure 4, and figure 6; where the force management system is provided with raw statistical data of incoming calls and agents activity. The incoming calls and agents' activities are generated work and the raw statistical data is historical data. This data is used to generate a forecast).

As per claim 12, Castonguay teaches:

The modular system architecture for a process stream of claim 11, wherein said Forecast Transaction is a Forecasted Workload Volume derived from queued historical transactional data (see column 7 lines 16-35, column 11 lines 23-32, and

column 11 lines 40-57; where the raw data provided to the force management system includes statistics concerning incoming calls such that the system can parse this information in to call volume and average handling time. Using the average handling time the system determines how many minutes pass before an agent can handle a call. A call is queued until an agent can handle the call, thus the system is effectively receiving statistical data on queued work transactional data).

As per claim 13, Castonguay teaches:

The modular system architecture for a process stream of claim 12, wherein said Forecast Transaction is a Forecasted Workload Volume derived from a Selected Scenario function, said Selected Scenario function is derivable from actual historical transactional data (see column 6 lines 44-48, column 7 lines 17-34, column 8 lines 32-67, column 9 lines 1-15, and figure 6; where the historical data is scanned for predetermined, user selected periods of time. A selected scenario is defined as a set of user-defined conditions).

As per claim 14, Castonguay teaches:

The modular system architecture for a process stream of claim 13, wherein said Forecast Transaction is a Forecasted Workload Volume derived from a Selected Scenario function, said Selected Scenario function is derivable from selected special conditions (see column 8 lines 32-67, column 9 lines 1-15, see column 10 lines 11-42 and column 10 lines 50-57, and figure 6; where the historical data is scanned for predetermined, user selected periods of time and special days (conditions) are taken

in to consideration. A selected scenario is defined as a set of user-defined conditions).

As per claim 15, Castonguay teaches:

The modular system architecture for a process stream of claim 14, wherein said Staffing Requirements is derivable from selected Staffing Guides (see column 6 lines 37-40 and column 7 lines 5-15; where tour templates are defined. Tour templates contain information describing a bounded work shift having work rules and operating constraints. A staffing guide is a tour template).

As per claim 16, Castonguay teaches:

The modular system architecture for a process stream of claim 1, further comprising:

f) a Staffing Requirements Costing Module in communication with said Staffing Requirements Module, said Staffing Requirements Costing Module having a plurality of operational tools to determine the workload cost of said selected Schedule (see column 15 lines 59-67, column 17 lines 65-67, column 18 lines 1-25, and figure 10; where a user has the tools to select conditions and constraints to determine the optimal workshifts. The user can also estimate the cost of a schedule, and view the actual cost of a schedule based on user input constraints. These constraints include the cost of a workload.); and

g) said Staffing Requirements Costing Module's tools selected from a group consisting of Estimating Cost Of A Schedule, Cost Calculation Options,

View Schedule Cost and View Workload Cost (see column 15 lines 59-67, column 17 lines 65-67, column 18 lines 1-25, and figure 10; where a user has the tools to select conditions and constraints to determine the optimal workshifts. The user can also estimate the cost of a schedule, and view the actual cost of a schedule based on user input constraints. These constraints include the cost of a workload.).

As per claim 17, Castonguay teaches:

The modular system architecture for a process stream of claim 1, further comprising:

h) a Tool Module in communication with said Scheduling Module, said Tool Module having a plurality of operational tools to generate said selected Schedule (see column 17 lines 42-67, column 18 lines 1-25, figure 1 and figure 10; The build schedule management tool allows a user to make changes to an individuals schedule (Queue Staffing Calculator). Such changes are immediately sent from the user's workstation to a central computer (Synchronization Tool and Exporting/Importing Section Tool). The schedule generation tool of the system allows a user to modify the schedule with regard to cost and view the schedule (Global Setup Tool and Operations Tool). The system architecture defined in figure 1 allows users to connect to the MIS and FMS databases via their workstations (Database Tool.)); and

i) said Tool Module's tools selected from a group consisting of Queue Staffing Calculator, Synchronization Tool, Exporting/Importing Section tool, Database Setup Tool, Global Setup Tool, and Operations Tool (see column 17 lines 42-67, column 18 lines 1-25, figure 1 and figure 10; The build schedule management tool allows a user to make changes to an individuals schedule (Queue Staffing Calculator). Such changes are immediately sent from the user's workstation to a central computer (Synchronization Tool and Exporting/Importing Section Tool). The schedule generation tool of the system allows a user to modify the schedule with regard to cost and view the schedule (Global Setup Tool and Operations Tool). The system architecture defined in figure 1 allows users to connect to the MIS and FMS databases via their workstations (Database Tool.)).

As per claim 18, Castonguay teaches:

A modular system architecture for a process stream, the process stream having means operatively disposed therein for communicating with at least one computer or database engaged in management of workload distribution, comprising:

b) a Forecast Module in communication with the database, said Forecast Module importing a selected Actual Historical Workload Volume from the database (see column 6 lines 44-48, column 7 lines 17-34, figure 4, and figure 6; where the force management system is provided with raw statistical data of incoming calls and agents activity. The incoming calls

and agents' activities are generated work and the raw statistical data is historical data.);

c) said Forecast Module having data structures transforming said received Actual Historical Workload Volume into a Projected Workload Volume via a selected Scenario (see column 6 lines 44-48, column 7 lines 17-34, column 8 lines 32-67, column 9 lines 1-15, and figure 6; where the historical data is scanned for predetermined, user selected periods of time. A selected scenario is defined as a set of user-defined conditions);

d) a Staffing Requirements Module in communication with said Forecast Module, said Staffing Requirements Module transforming said Projected Workload Volume into at least one Staffing Requirements (see column 7 lines 36-54; where staffing requirements are determined based on forecast call (workload) volume and user defined parameters.);

e) a Scheduling Module in communication with said Staffing Requirements Module, said Scheduling Module transforming Staffing Requirements into a selected Schedule (see column 7 lines 55-67 and column 8 lines 1-7; where a schedule is determined by matching the staffing possibilities with the staffing requirements);

whereby the process stream providing said selected Schedule of workload distribution derived from said Projected Workload Volume.

As per claim 19, Castonguay teaches:

The modular system architecture for a process stream of claim 18, wherein said Scenario derived from selected operation characteristics of the process stream (see column 6 lines 44-48, column 7 lines 17-34, column 8 lines 32-67, column 9 lines 1-15, column 15 lines 59-67, column 17 lines 65-67, column 18 lines 1-25, and figures 6 and 10; where the historical data is scanned for predetermined, user selected periods of time. A selected scenario is defined as a set of user-defined conditions. User also has the tools to select conditions and constraints to determine the optimal workshifts. The user can also estimate the cost of a schedule, and view the actual cost of a schedule based on user input constraints. These constraints include the cost of a workload).

As per claim 20, Castonguay teaches:

The modular system architecture for a process stream of claim 19, wherein said operation characteristics of the process stream are selected from a list consisting of attributes of special events, financial, environmental, political, managerial, labor force, management of the labor force, availability of the labor force, and scheduling of the labor force (see column 6 lines 44-48, column 7 lines 17-34, column 8 lines 32-67, column 9 lines 1-15, column 10 lines 11-42, column 10 lines 50-57, column 15 lines 59-67, column 17 lines 42-67, column 18 lines 1-25, and figures 6 and 10; where the historical data is scanned for predetermined, user selected periods of time. A selected scenario is defined as a set of user-defined conditions. User also has the tools to select conditions and constraints to determine the optimal workshifts. The user can also estimate the cost of a schedule, and view the actual

cost of a schedule based on user input constraints. These constraints include the cost of a workload. The system also parses data for specific times accounts for special days. A user also has the ability to create and modify individual, team, or full workforce schedules and determine which agents are open (available))

As per claim 21, Castonguay teaches:

A modular system architecture for a process stream, the process stream having means operatively disposed therein for communicating with at least one computer or database engaged in management of workload distribution, comprising:

a) a Forecast Module in communication with the database, said Forecast Module importing a selected Special Events Workload Volume from the database;

b) said Forecast Module having data structures transforming said received Special Events Workload Volume into a Projected Workload Volume via a selected Scenario;

c) a Staffing Requirements Module in communication with said Forecast Module, said Staffing Requirements Module transforming said Projected Workload Volume into at least one Staffing Requirements;

d) a Scheduling Module in communication with said Staffing Requirements Module, said Scheduling Module transforming Staffing Requirements into a selected Schedule;

whereby the process stream providing said selected Schedule of workload distribution derived from said Projected Workload Volume.

As per claim 22, Castonguay teaches:

The modular system architecture for a process stream of claim 21, wherein said Scenario derived from selected special events of the process stream (see column 10 lines 11-42 and column 10 lines 50-57; where the system parses data for specific times accounts for special days).

As per claim 23, Castonguay teaches:

The modular system architecture for a process stream of claim 22, wherein said special events of the process stream are calendar driven (see column 9 lines 38-61, column 10 lines 11-42, column 10 lines 50-57, and figure 6; where a calendar factor parses statistical data in to call (workload) volumes for a given calendar period and can account for special days (events)).

As per claim 24, Castonguay teaches:

The modular system architecture for a process stream of claim 23, wherein said special events of the process stream are periodic relative a calendar (see column 9 lines 38-61 and figure 6; where a calendar factor parses statistical data in to call (workload) volumes for a given calendar period).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are pertinent to the current invention, though not relied upon:

Sanders et al. (U.S. Patent No. 6574605) teaches an automated workload management system for a financial services institution.

Narimatsu et al. (U.S. Patent No. 5826236) teaches a optimized scheduling system that matches processes and resources.

Ertemalp (U.S. Patent No. 5745110) teaches a method of arranging a schedule in to a calendar format.

Srinivasan (U.S. Patent No. 5548506) teaches system for automating the tasks of a project management system.

Berman et al. (Berman, Oded; Larson, Richard C.; Pinker, Edieal; "Scheduling Workforce and Workflow in a High Volume Factory", *Management Science*, February 1997, pp. 158-172) teaches scheduling of workloads in a work-in-progress factory setting.

Easton et al. (Easton, Fred F.; Rossin, Donald F.; "A stochastic Goal Program for Employee Scheduling", *Decision Sciences*, Summer 1996, pp. 541-568) teaches deterministic goal programs for employee scheduling in attempts to minimize operating costs.

Betts et al. (Betts, Alan; Meadows, Maureen; Walley, Paul; "Call Centre Capacity Management", 2000, p. 185) teaches forecasting and capacity planning for call centers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalyan K. Deshpande whose telephone number is (571) 272-5880. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KKD
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